

December 5, 1967

Sherman A. Giles
Deputy Provo River Commissioner
Heber City, Utah 84032



Dear Mr. Giles:

Re: Provo River.

Earlier this year, we agreed that I should temporarily assume responsibility for operation of your gaging station on the Provo River near Midway (Midway Upper Dam) in order to keep the station in operation through the coming winter for the purpose of evaluating surface water - ground water relationships in the upper Heber Valley during the low-flow season. Since then, I have been collecting the recorder charts monthly, with the understanding that I would return them to you for filing. The charts for the 1967 water year are enclosed herewith.

When I talked with you in August, you expressed concern for the accuracy of the weir rating at this station, because water was visibly leaking under the weir plates. Accordingly, I made a series of current-meter measurements, which indicated that the rating of the weir was indeed grossly in error because of changed conditions since the rating was prepared. My measurements were evaluated by our office, and a new rating table, covering the range of stage observed this summer, was prepared. A copy of the new rating table is enclosed. As you can see, actual discharge during the time that the weir plates were in place was nearly 50% greater than that indicated by the old rating table.

Whether the new rating will remain valid next year depends on what changes are made in the weir structure, either by high-water damage or by repairs to the structure. I shall try to make some measurements soon after the plates are installed next season to see where we stand on this. Meanwhile, the enclosed rating table is probably valid for all of the 1967 season.

Sincerely,

Claud H. Baker Jr.
Hydrologist

cc: State Engineer

UNITED STATES DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY (WATER RESOURCES BRANCH)

Rating No. 2

File No. { Washington
Field

Rating table for

Provo River - Midway Upper Dam Weir Dated Nov 29, 1967

from _____ to _____; from _____ to _____
from _____ to _____; from _____ to _____

Gage height	.00	.01	.02	.03	.04	.05	.06	.07	.08	.09	Diff. encl.
Feet	Sec.-ft.	Sec.-ft.	Sec.-ft.	Sec.-ft.	Sec.-ft.	Sec.-ft.	Sec.-ft.	Sec.-ft.	Sec.-ft.	Sec.-ft.	Sec.-ft.
1.0											
1.1											
1.2											
1.3											
1.4											
1.5	18.8	19.3	19.8	20.2	20.7	21.2	21.7	22.2	22.6	23.1	4.0
1.6	23.6	24.1	24.6	25.1	25.6	26.2	26.7	27.2	27.7	28.2	5.0
1.7	28.7	29.3	29.8	30.4	30.9	31.5	32.1	32.6	33.2	33.7	5.6
1.8	34.3	34.9	35.6	36.2	36.8	37.4	38.1	38.7	39.3	40.0	6.3
1.9	40.6	41.3	42.0	42.7	43.4	44.2	44.9	45.6	46.3	47.0	7.1
2.0	47.7	48.6	49.4	50.2	51.1	52.0	52.8	53.6	54.5	55.4	8.5
2.1	56.2	57.4	58.6	59.7	60.9	62.1	63.3	64.5	65.6	66.8	11.6
2.2	68.0	69.4	70.9	72.3	73.7	75.2	76.6	78.0	79.4	80.9	14.0
2.3	82.3	83.9	85.6	87.2	88.8	90.4	92.1	93.7	95.3	97.0	16.0
2.4	98.6										
2.5											
2.6											
2.7											
2.8											
2.9											
3.0											
3.1											
3.2											
3.3											
3.4											
3.5											
3.6											
3.7											
3.8											
3.9											

Computed by L.J.J. 11/28/1967; Checked by C.T.R. 11/4/1967 Remarks
Computed on basis of 6 discharge measurements and
shape of previous curve.